

STATE OF CALIFORNIA
CAPITAL OUTLAY
BUDGET CHANGE PROPOSAL (COBCP)
COVER PAGE (REV 06/15)

DEPARTMENT OF FINANCE
915 L Street
Sacramento, CA 95814
IMS Mail Code: A15

BUDGET YEAR 2016-17

BUSINESS UNIT: 3540 COBCP NO. 1 PRIORITY: 1 PROJECT ID: 0000975

DEPARTMENT: Department of Forestry and Fire Protection

PROJECT TITLE: Mount Bullion Conservation Camp: Emergency Sewer System Replacement

TOTAL REQUEST (DOLLARS IN THOUSANDS): \$833 MAJOR/MINOR: Major

PHASE(S) TO BE FUNDED: PWC PROJ CAT: CRI CCCI/EPI: 6108

SUMMARY OF PROPOSAL:

Replace sewage disposal system at Mount Bullion Conservation Camp in Mariposa County. The system shall be designed to have sufficient capacity to contain and treat wastewater flows from the 110-bed camp as well as 100 year frequency precipitation and tailwater from spray fields. Additional storage/treatment ponds, expanded leach field or spray fields, or other methods determined during design may be necessary to comply with Regional Water Quality Control Board (RWQCB) guidelines.

HAS A BUDGET PACKAGE BEEN COMPLETED FOR THIS PROJECT? (E/U/N/?): N

REQUIRES LEGISLATION (Y/N): N IF YES, LIST CODE SECTIONS: _____

REQUIRES PROVISIONAL LANGUAGE (Y/N) N

IMPACT ON SUPPORT BUDGET: ONE-TIME COSTS (Y/N): Y FUTURE COSTS (Y/N): N

FUTURE SAVINGS (Y/N): Y REVENUE (Y/N): N

DOES THE PROPOSAL AFFECT ANOTHER DEPARTMENT (Y/N): N IF YES, ATTACH
COMMENTS OF AFFECTED DEPARTMENT SIGNED BY ITS DIRECTOR OR DESIGNEE.

SIGNATURE APPROVALS:

Steven T. Teader 3-21-16
PREPARED BY DATE

[Signature] 3/21/2016
REVIEWED BY DATE

[Signature] 3/25/16
DEPARTMENT DIRECTOR DATE

[Signature] 3/28/16
AGENCY SECRETARY DATE

DOF ANALYST USE

DOF ISSUE # _____ PROGRAM CAT: _____ PROJECT CAT: _____ BUDG PACK STATUS: _____

ADDED REVIEW: SUPPORT: _____ OCIO: _____ FSCU/ITCU: _____ OSAE: _____ CALSTARS: _____

PPBA: Original Signed by:
Stephen Benson

Date: 4/1/2016

A. PURPOSE OF THE PROJECT

Facility Background/History.

Mount Bullion Conservation Camp (Camp) is located six miles north of the community of Mariposa in Mariposa County. The Camp is situated on 20 acres of state-owned property, surrounded by sparsely-populated private and federal land. It is jointly operated by CAL FIRE and the California Department of Corrections and Rehabilitation (CDCR).

The Camp is in a strategically vital location in the Department's statewide camp layout. Its fire crews have at least a one hour travel advantage over the other fire camps in the region for response to fires within the Madera-Mariposa-Merced Unit. The Camp supplies inmate crews to support the Department's all-risk mission from wildland fire-fighting to emergency flood control support throughout the year. Camp crews are in high demand from local, state and federal agencies to work on public projects when the crews are not in training or on emergency assignments.

The facility was constructed in 1957 to house a maximum of 90 California Youth Authority (CYA) wards. In 2005, CYA removed its remaining wards, personnel, and property from Mount Bullion. In 2006, CAL FIRE and CDCR completed negotiations to populate the Camp with adult inmates and the Camp became an adult facility with a consistent year-round inmate population of 110.

The initial attack area for Mount Bullion Conservation Camp includes remote parts of Mariposa, Madera and Merced Counties, portions of the Stanislaus National Forest, Sierra National Forest and Yosemite National Park, rich timber producing lands owned by Sierra Pacific Industries (SPI) and other public and private lands. CAL FIRE management has recently reconfirmed the need and intent to keep Mount Bullion Camp fully operational. Mount Bullion Camp is not only vital to our normal fire-fighting and emergency operations, but is at the epicenter of the tree mortality (bark beetle and drought) affected area. Thus the crews are essential to our extended mission to mitigate that severe hazard as well as any El Nino or continued drought related incidents to come.

Problem:

The facility's original wastewater disposal system was upgraded in the mid-1990s via minor capital outlay. It currently consists of a 20,000 gallon compound septic tank, two storage/stabilization ponds, two irrigation spray fields, one failing leach field and associated pumps, aerators and distribution lines.

The existing leach field has diminished in disposal capacity due to clogging of pipes and soil drainage trenches which reduces the systems effluent permeation capacity. The system is also burdened by increased flows caused by water intrusion into the existing sewage collection system. The recent drought conditions and mild winters have reduced the water intrusion problem which has allowed operation under the diminished capacity through 2015.

The original 1957 sewage collection system includes vitreous clay sewer pipe with gasketed joints every four feet. Multiple locations have failed (fractured or collapsed) over the years allowing significant ground water intrusion into the sewage disposal system. Recent failures have led to increased sewage system inflows by a calculated 150%-200% of normal flows; based on measured daily water use (well production). Additionally, root intrusion has contributed to the accelerated degradation of the sixty-year-old pipe.

The El Nino winter storms of 2015/2016 inundated the leach field requiring them to be removed from service on Jan 7th, 2016 due to localized sewage effluent surfacing. Removing the leach field from service has prevented an illegal discharge that would violate our Waste Discharge Requirements (WDR) and expose the Department to significant fines and adverse public attention.

The WDR issued by the RWQCB on March 22 2011, Discharge NO 96-214, restricts use of the spray fields to dry weather and emergency use only. Although the spray fields are generally ineffective in the winter due to precipitation and restrictions to normal use as prescribed in the WDR they were forced into emergency service when the leach field was taken off line. The existing backup ponds do not have sufficient capacity to contain rainfall and provide for adequate extended storage for the duration of the rainy season without the intermittent use of the spray fields.

Emergency measures are in place to keep the facility operational with limited sewage disposal capacity. Measured water usage for this facility has been reduced to an average 9,000 gallons per day (GPD). This is further reduced from the historic average of 12,000 to 15,000 GPD and well below the permitted/design capacity of 20,000 GPD. A typical design parameter for sewage capacity is 130 gallons per person per day. Currently the facility is operating on less than 80 GPD with emergency measures in place. CDCR has taken a leadership role in assisting with water management with increased supervision of inmates and other water saving measures. These emergency water conservation measures are effective in the short-term but cannot be sustained long term and are not a permanent solution to the system failures.

Any changes to the sewage disposal system will require a new waste discharge permit to be obtained from the RWQCB. It is expected that the new WDR will require additional treatment to comply with current standards.

B. RELATIONSHIP TO THE STRATEGIC PLAN:

This project relates to the following goals in the California Department of Forestry and Fire Protection's 2012 Strategic Plan:

Goal: Seek to improve operational efficiency and effectiveness by shaping, enhancing and adapting to changing circumstances.

Objective: Develop and implement a strategy to reduce CAL FIRE's \$2.4 billion Capital Outlay replacement backlog of facilities that have an average age in excess of 45 years by 40% by 2022.

C. ALTERNATIVES:

1. Replace the sewage disposal system and install water saving fixtures.

Advantages:

The sewage system will mitigate ongoing health and safety hazards associated with the failed disposal system and will bring us into compliance with regulatory requirements. Installation of low-flow water fixtures will permanently reduce sewage flows and water use.

Disadvantages:

This alternative has no disadvantages.

2. Defer project to improve the sewage disposal system.

Advantages:

Other projects could be prioritized and funds could be used for other purposes.

Disadvantages:

There is no advantage to delay this project. The State will continue to be subject to illegal discharge and subsequent fines and adverse public attention.

RECOMMENDED SOLUTION:

1. Which alternative and why?

Alternative #1 is the preferred choice: Replace the sewer system and installation of the water-saving fixtures. This alternative would build a new water efficient system to handle operational requirements while substantially reducing the threat of an illegal discharge.

2. Detail scope description:

Design and construct a new sewage disposal system in compliance with current discharge requirements per RWQCB. Improvements may include replacement / expansion of leach field, spray fields or any other means prescribed by design and current regulatory requirements. Replacement of pumps, controls, sewer lines and collection system, installation of water saving (low flow) fixtures, diversion of grey water to maximize the potential reuse of water and reduce flows to the disposal system or any means and methods available or prescribed by regulation:

Site Development

Demolition

Earthwork

Drainage

Roads, Curbs and Paving

Gutters and Walks

Site Lighting

Fencing

Fuel Vault

Landscaping

Miscellaneous

Utilities

Grey Water

Water

Sanitary Sewer

Electrical Power

LPG/Nat. Gas

Telephone Cabling/Installation

Radio Cabling/Installation

Buildings

Pump House	400SF
Water Saving Fixtures	1LS

3. Basis for cost information, including acquisition costs, are contained in original, detailed 3-page estimate.
4. Factors/benefits for recommended solution other than the least expensive alternative.

The recommended solution is driven by the need to effectively deliver reliable critical emergency response resources to the State of California. Failure to implement the facility improvements outlined in this submittal will impact the operation of this mission critical facility.

5. Complete description of impact on support budget.

Maintenance and repair costs for the new facility will be low at the beginning of its 50-year lifespan.

6. Identify and explain any project risks.

There are no risks with the continuation of this project.

7. List requested interdepartmental coordination and/or special project approval.

This project requires compliance with CEQA as well as a revised discharge permit from RWQC Board. Plans for the improvements will be subject to review and approval by the RWQCB, State Fire Marshal and Access (ADA) compliance by the Division of the State Architect.

E. Consistency with Government Code section 65041.1:

1. Does the recommended solution (project) promote infill development by rehabilitating existing infrastructure and how? Explain.

Yes. CAL FIRE promotes infill when possible by renovating or replacing existing infrastructure in areas served by existing facilities, as is the case with this project.

2. Does the project improve the protection of environmental and agricultural resources by protecting and preserving the state's most valuable natural resources? Explain.

Yes. Due to the nature of the Department's mission, it can be necessary to locate facilities into areas that could have negative environmental and agricultural impacts; however, strategic placement of these facilities to provide more effective response to wild land fires will ultimately protect nearby forests, watersheds, agricultural land and other valuable natural resources.

3. Does the project encourage efficient development patterns by ensuring that infrastructure associated with development, other than infill, support efficient use of land and is appropriately planned for growth? Explain.

Yes. CAL FIRE facilities are strategically located to meet the Department's mission. To the maximum extent possible, CAL FIRE prefers to develop close to existing roads, water, sewer and other utilities to promote efficient development in the area and to mitigate future support costs for facility maintenance.



DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE - TECHNICAL SERVICES
ONE-PAGE ESTIMATE



PROJECT:	Mount Bullion Conservation		
	Camp: Emergency Sewer System		
	Replacement	CAL FIRE COBCP: 16/17 MA1	
LOCATION:	MARIPOSA COUNTY	EST. / PROJ. CCCI:	6108
DESIGNED BY:	TBD	ESTIMATE DATE:	2/2/2016
MANAGED BY:	TBD	EST. PREPARED BY:	SR/MS
PROJECT DIRECTOR:	TBD	DOF PROJ. ID NO.:	0000975

DESCRIPTION

Replace sewage disposal system at Mount Bullion Conservation Camp in Mariposa County. The system shall be designed to have sufficient capacity to contain and treat wastewater flows from the 110-bed camp as well as 100 year frequency precipitation and tailwater from spray fields. Additional storage/treatment ponds, expanded leach field or spray fields, or other methods determined by design may be necessary to comply with Regional Water Quality Control Board (RWQCB) guidelines.

ESTIMATE SUMMARY

DIRECT COST

Site work		\$100,000
Utilities		\$435,000
Pump House	400 sf	\$88,000
Water Saving Fixtures	1 ls	\$70,000
ESTIMATED TOTAL CURRENT COSTS:		<u>\$693,000</u>

Adjust CCCI from 6108 to 6108	\$0
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ESTIMATED TOTAL CURRENT COSTS June 2016:	<u>\$693,000</u>
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Escalation to start of construction 12 Months @ 0.42%/month:	\$0
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Escalation to midpoint of construction 6 Months @ 0.42%/month:	\$0
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ESTIMATED TOTAL CONTRACTS	<u>\$693,000</u>
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Contingency at 5%	\$35,000
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ESTIMATED TOTAL CONSTRUCTION COST	<u>\$728,000</u>
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Acquisition Phase	\$0
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Preliminary Plan Phase Indirect Costs (4% of Estimated Total Contracts):	\$28,000
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Working Drawing Phase Indirect Costs (4% of Estimated Total Contracts):	\$28,000
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Construction Phase Indirect Costs (7% of Estimated Total Contracts):	\$49,000
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ESTIMATED INDIRECT COSTS:	<u>\$105,000</u>
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TOTAL ESTIMATED PROJECT COST	<u><u>\$833,000</u></u>
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STATE OF CALIFORNIA				Budget Year 2016-17					
CAPITAL OUTLAY BUDGET CHANGE PROPOSAL (COBCP)				Proj ID: 0000975					
FISCAL IMPACT WORKSHEET				BU/Entity: 3540					
Department Title: Forestry and Fire Protection (CAL FIRE)				Program ID: 2485					
Project Title: Mount Bullion Conservation Camp: Emergency Sewer System Replacement				COBCP #: 1					
Program Category: Critical Infrastructure Deficiency				Priority: 1					
Program Subcategory:				MAMl: MA					
			Existing Authority	January 10 Action	April 1 Action	May 1 Action	May 14 Action	Special Action	Project Total
FUNDING									
bu-ref-fund-eny-year	ph	action							
3540-301-0001-16-16	P	BA			28				28
3540-301-0001-16-17	W	BA			28				28
3540-301-0001-16-18	C	BA			777				777
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
									0
TOTAL FUNDING			0	0	833	0	0	0	833
PROJECT COSTS									0
Study									0
Acquisition					0				0
Preliminary Plans					28				28
Working Drawings					28				28
Total Construction or Design-Build					777	0			777
Equipment (Group 2)									0
TOTAL COSTS			0	0	833	0	0	0	833
CONSTRUCTION OR DESIGN-BUILD DETAIL									
Contract					693				693
Contingency					35				35
A&E					28				28
Agency Retained					0				0
Other					21				21
TOTAL CONSTRUCTION OR DESIGN-BUILD			0	0	777	0	0	0	777
FUTURE FUNDING				0	0	0	0	0	0
SCHEDULE			mm/dd/yyyy		PROJECT SPECIFIC CODES				
Study Completion			Proj Mgmt:	G	Location:	Madera-Mariposa-Merced Unit			
Acquisition Approval			Budg Pack:	N	County:	Mariposa			
Start Preliminary Plans	7/1/2016		Proj Cat:	CRI	City:	Mariposa			
Preliminary Plan Approval	11/30/2016		Req Legis:	N	Cong Dist:	4			
Approval to Proceed to Bid	5/1/2017		Req Prov:	N	Sen Dist:	8			
Contract Award Approval	8/29/2017		SO/LA Imp:	N	Assm Dist:	5			
Project Completion	2/25/2018								

STATE OF CALIFORNIA		Budget Year 2016-17	
CAPITAL OUTLAY BUDGET CHANGE PROPOSAL (COBCP)		Proj ID:	0000975
FISCAL DETAIL WORKSHEET		BU/Entity:	3540
Department Title:	Forestry and Fire Protection (CAL FIRE)	Program ID	2485
Project Title:	Mount Bullion Conservation Camp: Emergency Sewer System Replacement	COBCP #	1
Program Category:	Critical Infrastructure Deficiency	Priority:	1
Program Subcategory:		MA/MI:	MA

Identify all items which fit into the categories listed below. Attach a detailed list if funding is included in this request. Provide descriptions and summary estimates for items for which you plan to request funding in the future. When possible, identify funding needs by fiscal year (BY+1 through BY+4).

PROJECT RELATED COSTS	COST	TOTAL
AGENCY RETAINED:		
Preliminary Plans	0	
Working Drawings	0	
Construction	0	
TOTAL AGENCY RETAINED		0
GROUP 2 EQUIPMENT		
TOTAL GROUP2 EQUIPMENT		0
IMPACT ON SUPPORT BUDGET	COST	TOTAL
ONE-TIME COSTS		
TOTAL SUPPORT ONE-TIME COSTS		0
ANNUAL ONGOING FUTURE COSTS		
TOTAL SUPPORT ANNUAL COSTS		0
ANNUAL ONGOING FUTURE SAVINGS		
TOTAL SUPPORT ANNUAL SAVINGS		0
ANNUAL ONGOING FUTURE REVENUE		
TOTAL SUPPORT ANNUAL REVENUE		0

STATE OF CALIFORNIA		Budget Year 2016-17	
CAPITAL OUTLAY BUDGET CHANGE PROPOSAL (COBCP)		Proj ID:	0000975
SCOPE/ASSUMPTIONS WORKSHEET		BU/Entity:	3540
Department Title:	Forestry and Fire Protection (CAL FIRE)	Program ID	2485
Project Title:	Mount Bullion Conservation Camp: Emergency Sewer System Replacement	COBCP #:	1
Program Category:	Critical Infrastructure Deficiency	Priority:	1
Program Subcategory:		MA/MI:	MA
<p>Replace sewage disposal system at Mount Bullion Conservation Camp in Mariposa County. The system shall be designed to have sufficient capacity to contain and treat wastewater flows from the 110-bed camp as well as 100 year frequency precipitation and tailwater from spray fields. Additional storage/treatment ponds, expanded leach field or spray fields, or other methods determined by design may be necessary to comply with Regional Water Quality Control Board (RWQCB) guidelines.</p>			